10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

MMP14 Antibody (N-term) Blocking Peptide

Synthetic peptide
Catalog # BP6198a

Specification

MMP14 Antibody (N-term) Blocking Peptide - Product Information

Primary Accession	P50281
Other Accession	NP_004986

MMP14 Antibody (N-term) Blocking Peptide - Additional Information

Gene ID 4323

Other Names
Matrix metalloproteinase-14, MMP-14, MMP-X1, Membrane-type matrix metalloproteinase 1, MT-MMP 1, MTMMP1, Membrane-type-1 matrix metalloproteinase, MT1-MMP, MT1MMP, MMP14

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP6198a was selected from the N-term region of human MMP14 . A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MMP14 Antibody (N-term) Blocking Peptide - Protein Information

MMP14 Antibody (N-term) Blocking Peptide - Background

Proteins of the matrix metalloproteinase (MMP) family are involved in the breakdown of extracellular matrix in normal physiological processes, such as embryonic development, reproduction, and tissue remodeling, as well as in disease processes, such as arthritis and metastasis. Most MMPs are secreted as inactive proproteins which are activated when cleaved by extracellular proteinases. MMP14 seems to specifically activate progelatinase A, and may thus trigger invasion by tumor cells by activating progelatinase A on the tumor cell surface. Expression is significant in stromal cells of colon, breast, and head and neck.

MMP14 Antibody (N-term) Blocking Peptide - References

Will, H., et al., Eur. J. Biochem. 231(3):602-608 (1995).Takino, T., et al., Gene 155(2):293-298 (1995).Okada, A., et al., Proc. Natl. Acad. Sci. U.S.A. 92(7):2730-2734 (1995).Sato, H., et al., Nature 370(6484):61-65 (1994).

Name MMP14

Function
Endopeptidase that degrades various components of the extracellular matrix such as collagen. Activates progelatinase A. Essential for pericellular collagenolysis and modeling of skeletal and extraskeletal connective tissues during development (By similarity). May be involved in actin cytoskeleton reorganization by cleaving PTK7 (PubMed:20837484). Acts as a positive regulator of cell growth and migration via activation of MMP15. Involved in the formation of the fibrovascular tissues in association with pro-MMP2 (PubMed:12714657). Cleaves ADGRB1 to release vasculostatin-40 which inhibits angiogenesis (PubMed:22330140).

Cellular Location
Membrane; Single-pass type I membrane protein. Melanosome. Cytoplasm. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV Forms a complex with BST2 and localizes to the cytoplasm

Tissue Location
Expressed in stromal cells of colon, breast, and head and neck. Expressed in lung tumors.

MMP14 Antibody (N-term) Blocking Peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Blocking Peptides